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# Before the FEDERAL COMMUNICATIONS COMMISSION FCC 95-46 Washington, D. C. 20554

In the Matter of	)
	)
Amendment of Parts 2 and 15 of the	)
Commission's Rules to Deregulate the	)
Equipment Authorization Requirements	) ET Docket No. 95-19
for Digital Devices	)

## NOTICE OF PROPOSED RULE MAKING

Adopted: February 7, 1995; Released: February 7, 1995

Comment Date: 75 days from date of publication in the Federal Register Reply Comment Date: 105 days from date of publication in the Federal Register

By the Commission:

## INTRODUCTION

1. By this action, the Commission proposes to amend Parts 2 and 15 of the rules to streamline the equipment authorization requirements for personal computers and personal computer peripherals. Specifically, we are proposing to relax the equipment authorization requirements for these devices from FCC certification to a new equipment authorization process based on a manufacturer's or supplier's declaration of compliance. Under this new equipment authorization procedure, a manufacturer or equipment supplier would test a product to ensure compliance with our standards for limiting radio frequency (RF) emissions and would include a statement of compliance with those standards in the literature furnished with the equipment. We are also proposing to permit personal computers to be authorized based on tests and approval of their individual components, without further testing of the completed assembly. These changes would allow manufacturers and suppliers to market new equipment without having to submit an application for equipment authorization and await FCC approval. We anticipate that these proposed rule changes would save industry approximately \$250 million annually. They would also stimulate the creation of jobs and competition in the computer industry by relaxing regulations that are particularly burdensome for small

A personal computer is defined as an electronic computer that is marketed for use in the home, notwithstanding business applications. See Section 15.3(s). A peripheral device is defined as an input/output unit of a system that feeds data into and/or receives data from the central processing unit of a digital device. Examples include keybe and, printers, video monitors and controller cards, sound eards, etc. See Section 15.3(r).

manufacturers and would align the FCC equipment authorization requirements for personal computers with those used in other parts of the world.

## **BACKGROUND**

- 2. Parts 2 and 15 of the Commission's rules specify regulations and technical standards to control RF interference from personal computers and their associated peripherals to communications services such as AM, FM and TV broadcasting, land mobile services, aeronautical and maritime communications and navigation systems, amateur radio, etc. These standards specify limits on the radiated emissions and power line conducted emissions from personal computers and personal computer peripherals. Personal computers and personal computer subject to certification of compliance by the FCC.<sup>2</sup> Certification requires submittal of a written application, test report and fee to the FCC Laboratory. The FCC Laboratory may request a sample device for testing. The certification process currently takes about 35 days, but can take longer if additional information must be submitted to complete or correct the application. The equipment authorization process must be completed before importation and marketing can begin.<sup>3</sup>
- 3. Parties that perform tests for certification purposes must submit a description of their measurement facilities.<sup>4</sup> This description serves primarily to ensure that the test site used to measure RF emissions will produce accurate results. The requirement does not address the competence of the laboratory to perform the tests because the FCC reviews the technical data submitted with each application for certification. Approximately 500 laboratories have filed test site descriptions. About half of these laboratories are located in the United States and the remainder are located in other countries. Also, while there are a significant number of independent laboratories that test equipment for various manufacturers and suppliers on a contract basis, many manufacturers operate their own laboratories for testing equipment. The Commission publishes a list of laboratories that have filed a test site description and are willing to perform measurements on a contract basis.

#### DISCUSSION

4. The Commission has worked cooperatively with industry since the 1970's in developing and administering regulations for personal computers. Today, millions of personal computers are in use providing benefits to individuals and increasing the productivity of

<sup>&</sup>lt;sup>2</sup> The Commission's equipment authorization procedures are set forth in 47 CFR Sections 2.901, et seq.

See 47 CFR Section 2.801, et seq.

See 47 CFR Section 2,948.

businesses. With industry's support, the Commission's program for controlling interference from computing devices has proven successful and has ensured that these devices do not cause interference to radio services. We recognize that certification for personal computer equipment has now become increasingly burdensome for manufacturers given the rapid pace of personal computer technology development. With product life cycles that are often as short as six months, our 35 day speed-of-service for processing equipment authorization applications can represent a significant portion of the market life for personal computers and peripherals. Delays in the equipment authorization process can cause a manufacturer to lose its competitive advantage.

5. In this regard, we recently have received a number of requests from computer manufacturers, distributors and retailers, test laboratories and other interested parties regarding possible changes to the rules to relax the FCC certification requirements for personal computers and peripherals. These parties have also suggested that we permit authorization of computer systems assembled from components without the need to obtain equipment authorization for every combination of components. Based on the current high rate of compliance and lack of significant interference from personal computers and their peripherals, we now believe it is possible to reduce the regulatory burden on manufacturers without compromising our objective of controlling interference from personal computing equipment. In developing our proposals we have taken into account specific suggestions made by industry. We recognize, however, that many parties have an interest in these rules. It is our intent to solicit as broad a range of comments and alternative suggestions as possible. Our specific proposals are discussed below.

## **Equipment Authorization Requirements**

6. We are proposing to employ a new equipment authorization procedure for personal computers and personal computer peripherals. Specifically, we are proposing to relax the equipment authorization requirements for these devices from FCC certification to a new equipment authorization process based on a manufacturer's or supplier's declaration of compliance. Under this new equipment authorization procedure, a manufacturer or equipment supplier would test a product to ensure compliance with our standards for limiting RF emissions and would include a statement of compliance with those standards in the literature furnished with the equipment. We are proposing that this statement, entitled a "Declaration of Conformity" (DoC), include the following information: 1) identification of the specific product covered by the declaration (e.g., by trade name and model number); 2) a statement that the product complies with Part 15 of the FCC Rules; 3) identification of the compliance test report by date and number; and, 4) identification by name, address and telephone number of the manufacturer, importer or other party located within the United States that is responsible for ensuring compliance. We are proposing that the party that issues the DoC would be the party responsible for ensuring compliance with all applicable FCC requirements and that this declaration must be executed before the subject equipment may be imported or marketed. We are further proposing to require that the responsible party furnish the DoC

and test report to the Commission within 14 days if requested.<sup>5</sup>

- 7. Under our current rules, personal computers and personal computer peripherals must be labelled with the FCC Identifiers that are associated with their grants of certification.<sup>6</sup> Since we are proposing no longer to require certification of personal computers and their peripherals, there may be no easy way for consumers to look at a specific device and determine that it complies with our testing and authorization requirements. As such, we believe that some sort of compliance labelling may be required. Our rules do require all Part 15 devices to be labelled with a general statement of compliance with the standards. We propose, therefore, that personal computers and their peripherals be required to also display a small logo, similar to the UL logo used by products that comply with standards developed by the Underwriters' Laboratories or the EC logo that indicates compliance with European standards. This logo will indicate compliance with FCC Rules. We invite comments on the specific format for such compliance labelling.<sup>8</sup> We invite comments as to whether this labelling is necessary and whether the costs of this requirement warrant the benefits. We are also proposing to maintain the existing requirement to provide information in the user manual as to the steps to be taken in the event the equipment causes interference.<sup>9</sup>
- 8. With regard to compliance testing, we believe it is important under this self-certification program to ensure that laboratories can adequately perform the testing required. We note that the National Institute of Standards and Technology (NIST) has developed a "National Voluntary Laboratory Accreditation Program" (NVLAP) to ensure the competence of test Jaboratories. We believe that the NVLAP could serve as an effective method for

We note that this proposal is similar to suggestions advanced by computer industry representatives. For example, the Information Technology Industry Council (ITI), formerly the Computer and Business Equipment Manufacturers Association (CBEMA), suggested a similar approach. ITI claims that such an approach would save manufacturers and suppliers of personal computer equipment \$250 million annually. See letters dated November 8 and 11, 1994, from the President of CBEMA the to the Chief, Office of Engineering and Technology.

<sup>&</sup>lt;sup>6</sup> Sec 47 CFR Sections 2.925 and 2.926.

See 47 CFR 15.19(a)(3).

Recognizing that the North American Free Trade Agreement calls for the general termonization of technical standards and equipment authorization requirements for all types of products, we also invite comment on whether a North American Class A or Class B label right be more appropriate. While Class B products may be used in any environment, uncluding residential, Class A digital devices incorporates products that are used only in an adustical, commercial or business environment. See 47 CFR Section 15.3(h) and (i).

<sup>&</sup>quot; See 47 CFR Sections 15.19 and 15.105.

laboratories to demonstrate competence to perform FCC compliance testing. Under this program, NIST reviews the qualifications of a laboratory's testing personnel, quality control procedures, record keeping and reporting, etc. and sends recognized experts to observe testing. We also observe that laboratory accreditation is generally required, either implicitly or explicitly, under most foreign product approval procedures. Accordingly, as part of this new DoC process, we are proposing to require that laboratories testing personal computers and personal computer peripherals be NVLAP accredited. We request comments on this proposal. Specific comments are requested on the desirability of requiring NVLAP accreditation of manufacturer's laboratories or permitting alternative methods of accrediting laboratories.

- 9. We are aware that only about 20 labs are currently accredited by NVLAP for FCC testing of personal computers and peripherals and only one is located outside the United States. We therefore believe a transition period is needed to allow laboratories an opportunity to obtain NVLAP accreditation. Accordingly, we are proposing to maintain the option of obtaining FCC certification for personal computers and peripherals for a period of two years to allow laboratories time to obtain accreditation. Comments are invited as to whether this is an adequate period of time. We are aware that it may be particularly difficult for foreign laboratories to obtain NVLAP accreditation due to the logistics of arranging for the required inspection by experts. However, NIST could negotiate agreements whereby its foreign counterparts perform the necessary accreditation. We plan to work closely with NIST to ensure that the NVLAP program is effective in ensuring the competence of laboratories that perform FCC compliance tests for personal computer equipment.
  - 10. To ensure that personal computers and peripherals continue to comply with our

Information describing the NVLAP accreditation program is being inserted in the record for this proceeding. NVLAP accreditation is available to demonstrate competence to perform tests in accordance with the measurement procedure for digital devices used by the Commission, namely, American National Standards Institute (ANSI) C63.4-1992, entitled "Methods of Measurement of Radio Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz," published by the Institute of Electrical and Electronics Engineers, Inc. on July 17, 1992, as document number SH15180.

See 47 CFR 15.31(a)(6). We understand that NVLAP accreditation typically costs \$5000 to \$7500 for the initial accreditation with an annual administrative fee of approximately \$2500 thereafter.

This aspect of our proposal is consistent with a suggestion submitted by the American Council of Independent Laboratories (ACIL). <u>See</u> letter dated December 21, 1994, from the Chairman, ACIL EMC Subcommittee to the Chief, Sampling and Measurements Branch.

For example, we are aware that the private sector has developed programs to accredit test laboratories, such as that offered by the American Association for Laboratory Accreditation.

emissions standards, we plan to reallocate a portion of our resources that had been used to process equipment certification applications to increased examination and testing of sample equipment on the market. Parties responsible for devices found not to be in compliance would be subject to appropriate enforcement actions.<sup>13</sup>

- 11. We believe our proposals for relaxing the equipment authorization requirements for personal computing equipment would provide a number of important benefits for manufacturers and suppliers of this equipment and that these benefits would ultimately inure to personal computer users as well. Initially, we observe that our proposed plan would enable manufacturers to introduce equipment to the market more rapidly and to avoid the costs involved in the current certification process. Reducing the time-to-market of computer products would promote competition in the market for these products. As noted by ITI, avoidance of the delays and filing costs associated with the current process also could save the industry many millions of dollars, providing higher rates of return on investment that would both allow manufacturers to focus more resources on further product development efforts and attract new resources to the industry. Our proposals would further protect manufacturers' business interests by eliminating the premature disclosure of new products that occurs in the filing of applications for certification. These advantages for manufacturers can be expected to benefit consumers in the form of lower prices, more features and improved product quality.
- 12. We also note that our proposal is similar to product approval programs for digital devices employed in other parts of the world. In Europe, for example, manufacturers are permitted to self-declare compliance with radio noise standards for personal computer equipment. There is growing interest in the international harmonization of standards, test methods and product approval procedures to better facilitate trade.<sup>14</sup> We have, in fact, taken

For example, we could assess monetary forfeitures and require that importation and marketing of noncompliant equipment cease immediately. See 47 CFR Section 2.801 et seq.

For example, the North American Free Trade Agreement (NAFTA) Article 1304-6 calls for each of the parties to adopt, as part of its conformity assessment procedures, provisions necessary to accept the test results from laboratories in the territory of another party for purposes of product approvals. The Asia Pacific Economic Community (APEC) has adopted guidelines promoting the regional harmonization procedures for the certification of telecommunications equipment. These guidelines state that APEC Member Economies should accord mutual recognition of laboratory test data from other members that is performed in accordance with the accepting Economy's standards and technical requirements. (Certain digital devices, such as computer modems, are also telephone terminal equipment.) The APEC guidelines also call for certification procedures to be streamlined, to provide equipment suppliers with a rapid approval process containing the minimum of administrative obstacles. In addition, at the December 1994 Summit of the Americas hosted by the United States, the Organization of American States' Inter-American Telecommunications Commission (CITEL) was tasked with examining ways to promote greater consistency of the authorization processes

actions in the past to harmonize the standards and measurement procedures for personal computer equipment with those accepted internationally.<sup>15</sup> We believe our proposed DoC plan would advance the possibility that U.S. product approvals for personal computers and their associated peripherals may one day be accepted throughout the world. This would potentially provide U.S. manufacturers easier access to foreign markets, thereby creating jobs and enhancing U.S. economic growth.

13. We invite comments on these proposals to deregulate the equipment authorization requirements for personal computers and their associated peripherals and solicit suggestions for alternative approaches. One alternative would be to retain the current certification process but streamline it to reduce the processing time. Another alternative would be to maintain the certification requirement, but permit marketing to begin as soon as the application is filed. Yet another option would be to relax the equipment authorization requirement for personal computers and peripherals from certification to notification or verification. We note that the proposed new equipment authorization process, which is based on a manufacturer's or supplier's declaration is very similar to our current verification procedure. 16 The two principal differences are that manufacturers must include a copy of the Declaration of Conformity with the information furnished to the user and testing laboratories will be required to be accredited by NIST. We invite comment as to whether digital devices that are currently subject to verification should be subject instead to the new equipment authorization process. We also invite comments as to whether it may be feasible to assure compliance with our standards without requiring testing. We also specifically request information as to the impact, including monetary, of these rules on small businesses

## Authorization of Modular Personal Computers

14. The rules currently require that every combination of enclosure, power supply and CPU board that is marketed as a personal computer be tested and receive equipment

for telecommunications equipment among member countries.

See Report and Order in GEN Docket Nos. 89-116, 89-117, and 89-118, in the matter of procedure for measuring electromagnetic emissions from intentional and unintentional radiators, 8 FCC Rcd 4236 (1993). See also Report and Order in ET Docket 92-152, in the matter of revision of Part 15 of the Rules to harmonize the standards for digital devices with international standards, 8 FCC Rcd 6772 (1993).

Digital devices, other than personal computers and peripherals, are generally subject to verification of compliance with the Commission's technical standards for controlling radio noise. Verification is a self-approval process where the manufacturer tests the device, retains a record of the result, labels the product as compliant and places information in the user instruction manual to provide guidance on how to correct radio interference. Sec. 47 CFR Sections 15.3(k) and 15.101

authorization prior to marketing. Individual enclosures, power supplies, and CPU boards are considered to be subassemblies that are not subject to testing or equipment authorization requirements until they are assembled into a personal computer. A recent trend in marketing personal computers is for the manufacturer, distributor or retailer to assemble a computer, using modular computer components such as enclosures, power supplies, and CPU boards, in order to meet the specific needs of the customer. This can result in a wide variety of possible computer configurations that each require testing and authorization. As such, our existing rules are very burdensome on industry, particularly for small assemblers who may build only a few of any particular configuration of computer.

- 15. In response to petitions from the International Business Machines Corporation ("IBM") and ITI, we initiated a proceeding in 1990 to permit the individual authorization of personal computer CPU boards and power supplies. However, there was no industry consensus in response to our proposals is to how modular personal computer components, and personal computers constructed from these components should be regulated by the Commission. Indeed, it appears that some of the proposals in that proceeding would have increased the complexity of our regulations, requiring more testing and grants of equipment authorization than under the current rules. The region is to that proceeding is now stale due to several changes that have occurred. For example, there are now multiple vendors of microprocessors that can easily be interchanged as a given CPO board, potentially affecting the levels of radio noise that may be generated. Further as discussed previously, we are now proposing to relax the equipment authorization requirements for personal computers and peripheral devices to a supplier's Declaration of Conformity, something that wasn't proposed previously. Accordingly, we intend to erminate the earlier proceeding in GEN Docket No. 90-413 and are initiating this new proceeding with revised, simplified proposals.
- 16. We believe that it is important to our rales to recognize the changes that have occurred in the design and marketing of personal computers. Accordingly, in addition to our proposal to replace the current certification requirement with a requirement for a Declaration of Conformity, we are proposing further changes that will specifically provide for modular digital devices. These changes should result in decreased regulatory burden, reduced time to market, greater design flexibility and lower costs for manufacturers and consumers.

<sup>&</sup>lt;sup>17</sup> See 47 CFR Section 35.101(c) and (e).

In some cases, the cost of obtaining a grant of certification for a personal computer, cocluding testing, can exceed \$5,000.00. This tost conditions in shibitive, especially for a system assembler, such as a retailer, that assembles and markets computers in small quantities.

See, Petition for Reconsideration filed by IBM on May 26, 1989, and Petition for Limited Reconsideration filed by CBEMA on May 26, 489, in response to the First Report and Order, GEN Docket N. S. 200, a by C. Roe 2013, 489. See, also, Notice of Proposed Mulc Making, GEN Docket N. S. 200, a by C. Roe 2013, 489. See, also, Notice of Proposed Mulc Making, GEN Docket N. S. 200, a by C. Roe 2013, 489. See, also, Notice of Proposed Mulc Making, GEN Docket N. S. 200, a by C. Roe 2013, 489. See, also, Notice of Proposed Mulc Making, GEN Docket N. S. 2013, a by C. Roe 2013, 489. See, also, Notice of Proposed Mulc Making, GEN Docket N. S. 2013, a by C. Roe 2013, 489. See, also, Notice of Proposed Mulc Making, GEN Docket N. S. 2013, a by C. Roe 2013, and Further Notice of Composed Rule Making, GEN Docket N. S. 2013, a by C. Roe 2013, and Further Notice of Composed Rule Making, GEN Docket N. S. 2013, a by C. Roe 2013, a by C. Ro

- 17. We propose to require that all CPU boards, power supplies, and enclosures designed for use in personal computers and marketed to the public be authorized to demonstrate compliance with the technical standards contained in Part 15 of our rules.<sup>20</sup> A CPU board would be defined as a circuit board that contains a microprocessor, or frequency determining circuitry for the microprocessor, the primary function of which is to execute user-provided programming, but not including: (1) a circuit board that contains only a microprocessor intended to operate under the primary control or instruction of a microprocessor external to such a circuit board; or, (2) a circuit board that is a dedicated controller for a storage or input/output device.<sup>21</sup>
- 18. We also propose to allow any party to integrate personal computer systems using these authorized components or to interchange these components in existing personal computer systems without the need to retest the resulting system, provided the assembly instructions provided with the components are followed.<sup>22</sup> The assembler will be required to issue a new Declaration of Conformity indicating the basis on which compliance was ensured, e.g., only authorized components were used in the assembly or authorized components were installed in an authorized system. This Declaration of Conformity must specify the identification of each product used in the computer, a statement that the computer complies with the Part 15 of the FCC Rules, identification of the compliance reports for each product used in the computer by date and number, and identification by name, address and telephone number of the assembler who becomes responsible for ensuring that the resulting system complies with the standards.<sup>23</sup> We solicit views on these general proposals.

The reference to authorization refers to certification, verification or a Declaration of Conformity, depending on what is finally adopted in this proceeding. We intend to apply the same level of authorization to components of a computer as what is finally adopted for assembled computers.

This is the definition that was developed under GEN Docket 90-413. It is intended to exclude products such as I/O cards, <u>e.g.</u>, video cards, printer interface cards, and disk drive controller cards.

We propose to continue to permit personal computers to be authorized as a system, based on the specific combination of CPU board, power supply and enclosure used in their construction, without having to obtain a separate authorization for each internal component. Assemblers or manufacturers of these computers could separately authorize the individual components at a later date if so desired.

As with computers authorized as complete systems, computers assembled from authorized components must comply with the existing labelling and user information requirements that apply to verified equipment. See 47 CFR Sections 15.19, 15.21, 15.27 and 15.105. We will not permit the use of paper, stick-on labels on these products. Such labels generally do not adhere well to printed circuit boards and would not be expected to last the lifetime of the equipment, as required under the rules.

- 19. The current rules require that personal computer equipment be tested to show compliance with technical standards that limit the level of RF energy that may be radiated from the device and conducted onto the AC power lines.<sup>24</sup> The radiated limits are intended to protect communications above 30 MHz and the conducted limits protect communications below 30 MHz. The ability of a personal computer system to comply with the technical standards depends upon a complex interaction of the CPU board, power supply, enclosure and other subassemblies used within the system. The shielding, grounding and filtering techniques used in the design of a personal computer system can be critical in determining whether the system complies with FCC standards. This poses a particularly difficult challenge for development of appropriate measurement configurations for determining whether CPU boards, power supplies and enclosures meet our standards. For example, testing CPU boards in a single typical computer system configuration, as is currently the practice for testing personal computers, may not adequately ensure compliance with our standards. We are cognizant that no measurement procedure can provide complete assurance of compliance for all possible combinations of personal computer components. It is rather our intent that the measurement procedures will ensure compliance under most conditions. The small risk that certain combinations of components might not comply with our standards simply does not warrant extensive, burdensome measurement procedures. Nor do we believe that justification exists for creating burdensome restrictions as to what products can be combined without additional testing.
- 20. In our earlier proceeding on modular computers, we proposed a novel approach for testing the levels of emissions from CPU boards. We proposed that the CPU board be tested twice. In the first test, the CPU board would be connected to a power supply with the oscillator circuit for the microprocessor operating with the output coupled to the microprocessor circuit, as would occur under normal operation. No peripheral devices would be connected during this first test, and only radiated emissions would be measured. Further, under this first test, we would permit the radiated emissions to exceed the limits specified in our rules by a specified amount, e.g., 6 dB. The second test of the CPU board would take place with the CPU board installed in a representative enclosure, with a representative power supply, and configured in the manner currently specified under our rules. This latter test must demonstrate compliance with the appropriate standards for both radiated and conducted emissions. We continue to believe that this overall approach has merit. However, we invite comment on this proposal and request alternative suggestions. We

<sup>&</sup>lt;sup>24</sup> See 47 CFR Sections 15.107 and 15.109.

See Further Notice of Proposed Rule Making, op. cit., at para. 19-20.

<sup>&</sup>lt;sup>26</sup> If the oscillator and microprocessor boards are contained on separate circuit boards, both boards, typical of the combination that would normally be employed, would be used in the tests.

<sup>&</sup>lt;sup>27</sup> See 47 CFR Section 15.31(a).

also invite comment as to how to deal with the fact that a CPU board may be capable of accepting microprocessors from multiple manufacturers.

- 21. We propose to permit power supplies to be authorized based on a single test with the power supply installed in a typical configuration, as is currently done under the rules. We have found that the design of the computer power supply generally determines the ability of the computer to comply with our standards for limiting emissions conducted onto the AC power lines. In this case, interaction between the various components within the computer should have little impact on the ability of the power supply to demonstrate compliance with the standards.
- 22. We have not heretofore proposed standards or measurement procedures for personal computer enclosures used with modular computers. However, commenters in our earlier proceeding on modular computers were nearly unanimous in stating that authorization for enclosures is critical to the successful control of radiated emissions. This is once again a complex problem because an enclosure when tested with a CPU board that produces little radio noise may be considered "compliant" and yet may not be "compliant" when tested with a CPU board that is noisy. Further, an enclosure that is satisfactory for shielding the frequencies of emissions produced by a 33 MHz "486" processor, may not be adequate for shielding the emissions produced by a 90 MHz Pentium processor. We believe a pragmatic approach must be taken. We believe that the CPU board and other components used for tests on the enclosure should produce emissions within a few dB of the emissions limits without the enclosure. The enclosure should be shown to provide 6 dB of shielding effectiveness across the spectrum from 30 MHz to 1000 MHz. The DoC for the enclosure should specify the particular types of CPU boards for which it is authorized (e.g., for use with "486DX2" CPU boards). We invite comment on this approach and request alternative recommendations
- 23. In general, we believe that manufacturers should design modular personal computer systems such that there is no need for special add-on parts or accessories, such as ferrite beads, to be provided with the CPU board, power supply or enclosure in order to achieve compliance with our emission limits. However, the existing rules already allow the use of special accessories for other devices and we are proposing to apply the same requirements to CPU boards and power supplies.<sup>28</sup> Any special steps required to ensure compliance must be explained in the installation instructions. We propose to prohibit authorization of CPU boards or internal power supplies that require complex electrical changes to the host system, such as by soldering parts or altering circuitry.
- 24. In addition to describing any special accessories, the instruction manual must also specify all of the installation procedures that must be followed to ensure compliance with the

<sup>&</sup>lt;sup>28</sup> See 47 CFR Section 15.27.

- standards.<sup>29</sup> For example, the installation instructions shall address, where needed, the use of shielded connecting cables, the number and location of ground connections, the type of enclosure to be employed, and the addition of any needed components.
- 25. We propose to continue our policy of permitting non-authorized digital devices, including CPU boards and power supplies, to be sold to other manufacturers for further fabrication.<sup>30</sup> In such cases, the final manufacturer would be responsible for testing and authorizing the product. However, computer CPU boards, internal power supplies and enclosures that are marketed to the general public must be authorized prior to marketing. Similarly, we propose to amend our importation rules to require that, when non-authorized computer CPU boards, power supplies or enclosures are imported, the consignee must be the manufacturer who will assemble and be responsible for testing and authorizing the computer into which these components are to be installed.<sup>31</sup> Comments are requested on these proposals.

#### PROCEDURAL MATTERS

- 26. This is a non-restricted notice and comment rule making proceeding. Ex parte presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed as provided in the Commission's rules. See generally 47 CFR Sections 1.1202, 1.1203, and 1.1206(a).
- 27. Initial Regulatory Flexibility Analysis. As required by Section 603 of the Regulatory Flexibility Act, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the expected impact on small entities of the proposals suggested in this document. The IRFA is set forth in the Appendix. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines as comments on the rest of the Notice, but they must have a separate and distinct heading designating them as responses to the Initial Regulatory Flexibility Analysis. The Secretary shall send a copy of this Notice of Proposed Rule Making, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration in accordance with paragraph 603(a) of the Regulatory Flexibility Act. Pub. L. No. 96-354, 94 Stat. 1164, 5 U.S.C. Section 601 et seq (1981).

Other statements may also be needed in the instruction manual. See, for example, 47 CFR Sections 15.21, 15.27, and 15.105.

We recognize that manufacturers of CPU boards, power supplies, and enclosures may need to provide their products to computer system manufacturers for testing, evaluation or product development purposes before authorization is obtained. We propose to allow such marketing in limited quantities.

<sup>&</sup>lt;sup>31</sup> See 47 CFR Sections 2.1201 et seq.

- 28. Comment Dates. Pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's Rules, 47 C.F.R. Sections 1.415 and 1.419, interested parties may file comment on or before [insert date 75 days from date of publication in the Federal Register] and reply comments on or before [insert date 105 days from date of publication in the Federal Register]. To file formally in this proceeding, you must file an original and five copies of all comments, reply comments, and supporting comments. If you want each Commissioner to receive a personal copy of your comments, you must file an original plus nine copies. You should send comments and reply comments to Office of the Secretary, Federal Communications Commission, Washington, D.C. 20554. Comments and reply comments will be available for public inspection during regular business hours in the FCC Reference Center of the Federal Communications Commission, Room 239, 1919 M Street, N.W., Washington, D.C. 20554.
- 29. The proposed action is authorized under Sections 4(i), 301, 302, 303(e), 303(f), 303(r), 304 and 307 of the Communications Act of 1934, as amended, 47 U.S.C. Sections 154(i), 301, 302, 303(e), 303(f), 303(r), 304 and 307.
- 30. For further information regarding this Notice of Proposed Rule Making, contact John Reed, Office of Engineering and Technology, (202) 653-6288.

FEDERAL COMMUNICATIONS COMMISSION

William F. Caton

William F. Caton

Secretary

#### APPENDIX

#### INITIAL REGULATORY FLEXIBILITY ANALYSIS

## Reason for Action

This rule making proceeding is initiated to obtain comment regarding whether and how the Commission should regulate computers, peripheral devices to computers and subassemblies to computers.

## **Objectives**

The Commission seeks to determine the standards, test procedures, and equipment authorization requirements that should be applied to computers as well as to CPU boards, power supplies, and enclosures used in personal computers in order: 1) to reduce regulatory burdens on computer manufacturers; 2) to remove impediments to flexible system design and construction techniques for computers; and, 3) to reduce the potential for interference to radio services by improving our ability to ensure that personal computers comply with our standards.

## Legal Basis

The proposed action is authorized under Sections 4(i), 301, 302, 303(e), 303(f), 303(r), 304 and 307 of the Communications Act of 1934, as amended, 47 U.S.C. Sections 154(i), 301, 302, 303(e), 303(f), 303(r), 304 and 307.

## Reporting, Recordkeeping and Other Compliance Requirements

CPU boards, power supplies, and enclosures designed for use in computers are proposed to be included under our standards and equipment authorization requirements. These components, which were not previously subject to our rules, will be included under an equipment authorization procedure similar to our verification procedure with the addition of a Declaration of Conformity that would be included with each product marketed. In addition, we propose to permit any party to assemble computers from authorized CPU boards, power supplies, and enclosures without further testing provided the instructions accompanying the components are followed during assembly. Computers assembled in this fashion would also be accompanied by a Declaration of Conformity. Alternatively, the computer may be assembled using unauthorized components provided the resulting system is tested and accompanied by a Declaration of Conformity. While the measurement data, where required, must be retained by the responsible party, there is no requirement to file an application with, and obtain authorization from, the Commission prior to marketing or importation. Accordingly, we expect a significant decrease in the overall recordkeeping requirements.

## Federal Rules Which Overlap, Duplicate or Conflict With These Rules

None

# Description, Potential Impact and Number of Small Entities Involved

The actions proposed in this proceeding will result in a significant decrease in the amount of testing and Commission authorization of computer systems. Currently, every combination of components used to make a basic computer system must be tested and authorized prior to marketing or importation. This is extremely burdensome, especially on small manufacturers. Under the proposal, as long as authorized components are used to assemble the computers no additional testing or Commission authorization would be required. However, there will be some impact to the entities that manufacture computer CPU boards, power supplies and enclosures. We estimate there are 50-75 manufacturers of CPU boards and a similar number of manufacturers of power supplies. No estimate is available on the potential number of manufacturers of enclosures. Even with this additional impact to the manufacturers of computer CPU boards, power supplies and enclosures, the overall workload will decrease.

Any Significant Alternatives Minimizing the Impact on Small Entities Consistent with Stated Objectives

None.